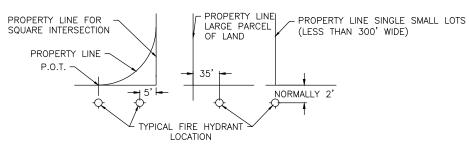
FIRE HYDRANT LOCATION

IN CUT OR FILL

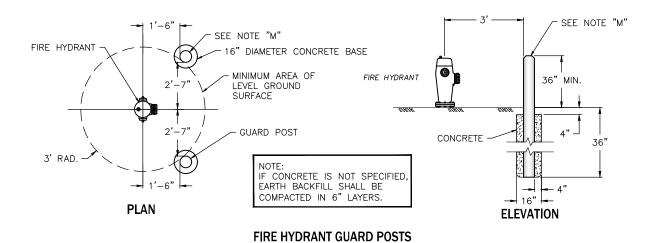
FIRE HYDRANT, SEE CITY OF WENATCHEE FIRE HYDRANT SPECIFICATIONS - 2 1/2" NST THREAD 4" PACIFIC COAST THREAD WITH STORTZ FITTING TWO-PIECE DUCTILE IRON VALVE BOX, EQUAL TO INLAND FOUNDRY #2062 TOP, + #2064 BOTTOM. LENGTH TO FIT 6" RS GATE VALVE. FLxMJ DUCTILE IRON FITTING, W/6" FLANGE ON SIDE 6" DUCTILE IRON PIPE, CEMENT LINED, LENGTH TO FIT. ALL JOINTS RESTRAINED ON HYDRANT RUN WITH MEGA LUGS

> NOTE: VALVE TO BE PLACED ON THE MAIN FOR NEW CONSTRUCTION. AVOID PLACING THE VALVE IN CURB & GUTTER FOR RETROFIT PROJECTS.

#### **FIRE HYDRANT ASSEMBLY** N.T.S.



#### TYPICAL FIRE HYDRANT LOCATION



FIRE HYDRANTS SHALL BE FOR ORDINARY WATER WORKS SERVICES AS DESCRIBED IN AWWA

- A. EACH HYDRANT SHALL HAVE 5" MVO WITH "O" RING SEALS, A BREAKAWAY FLANGE, A 1 1/4" OPERATING NUT AND NOZZLE CAP NUTS THAT OPEN COUNTER CLOCKWISE. GASKETS AND NOZZLE CAP SHALL BE INCLUDED.
- B. SHUT-OFF TYPE: COMPRESSION OR GATE.
- C. INLET CONNECTION: 6" MECHANICAL JOINT (125#) INLET.
- D. CONNECTION PORTS:

TWO (2)-2 1/2" I.D. HOSE NOZZLE PORTS WITH N.S.T. THREADS. ONE (1)-4" I.D. PUMPER OR STEAMER NOZZLE WITH P.C.T. THREADS AT SIX (6) THREADS PER INCH WITH AN O.D. OF 4.828" AND A THREAD BEVEL OF 60. THIS SHALL ALSO HAVE A STORTZ FITTING AS INDICATED ON THE DETAIL.

STORTZ FITTING-4" STORTZ TYPE ADAPTER WITH CAP AND CHAIN AND PYROLITE RIGID FEMALE CONNECTOR WITH SET SCREW. THE THREAD CUT ON THE FITTING SHALL MATCH EXISTING

THE STORTS FITTING SHALL NOT EXTEND PAST THE BACK OF THE SIDEWALK AND SHALL BE ORIENTED TO FACE THE WATER MAIN, OR AS DIRECTED BY THE CITY ENGINEER.

- E. DEPTH OF BURY SHALL BE 4 1/2" OR 5 1/2" DEPENDING ON THE CONDITIONS.
- F. ALL NOZZLES SHALL CONFORM TO CURRENT CITY OF WENATCHEE HYDRANTS.
- G. HYDRANT SHALL BE PAINTED YELLOW IN ACCORDANCE WITH AWWA C-502-54, SECTION 6.
- H. APPROVED MANUFACTURERS: MUELLER, M & H, CLOW F2500, OR KENNEDY GUARDIAN K-81. ONLY THESE BRANDS WILL BE ACCEPTED.
- I. ALL HYDRANTS SHALL BE EQUIPPED WITH TRAFFIC BREAKING FLANGES.
- J. ALL INSTALLATIONS WILL HAVE A RESILIENT SEAT AUXILIARY VALVE.
- K. ALL HYDRANTS SHALL HAVE MEGALUG RESTRAINED JOINTS.
- L. THE MINIMUM DISTANCE FROM THE BOTTOM OF THE LOWEST PORT TO FINISHED GRADE SHALL BE 18". THE DISTANCE FROM FINISHED GRADE TO THE BREAKING FLANGE SHALL BE A MINIMUM OF 2" AND A MAXIMUM OF 4".
- M. HYDRANT GUARD POST SHALL BE 8" DIAMETER x 6' LONG PRECAST CONCRETE POST EQUAL TO FOG-TITE METER SEAL CO,. PAINT WITH TWO COATS OSHA SAFETY YELLOW ENAMEL.

**DETAILS** DETAIL AND HYDRAN **STANDARD SPECIFICATIONS** FIRE

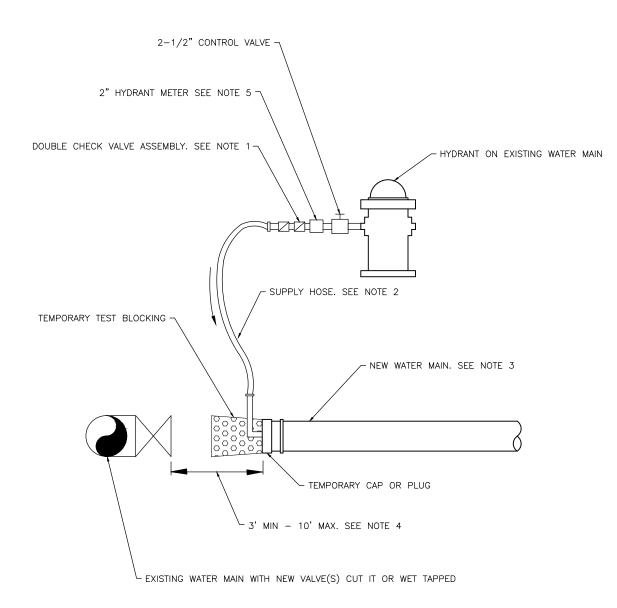


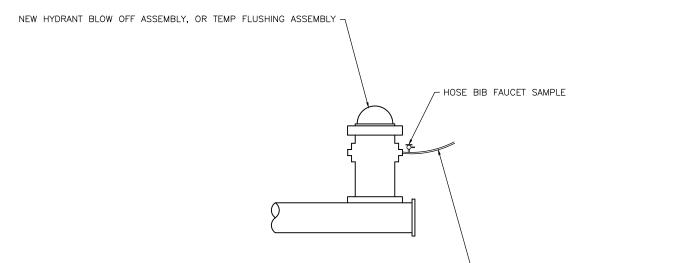
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#### **NOTES:**

- 1. AN APPROVED BACK FLOW ASSEMBLY SHALL BE INSTALLED BETWEEN THE NEW AND EXISTING WATERLINES DURING DISINFECTION AND FLUSHING OF NEW WATER MAIN.
- 2. THE BACK FLOW PREVENTION ASSEMBLY AND SUPPLY HOSE MUST BE DISCONNECTED DURING HYDROSTATIC PRESSURE TESTING OF THE NEW MAIN.
- 3. THE NEW WATER MAIN SHALL BE CONNECTED TO THE EXISTING SYSTEM ONLY AFTER THE NEW MAIN IS FLUSHED, DISINFECTED AND SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE OBTAINED.
- 4. THE INTERIORS OF ALL PIPES AND FITTINGS TO BE USED IN FINAL CONNECTION MUST BE SWABBED OR SPRAYED WITH A 1% AVAILABLE CHLORINE SOLUTION.
- 5. 2" HYDRANT METER SHALL BE OBTAINED FROM THE CITY OF WENATCHEE PUBLIC WORKS DEPARTMENT OR CHELAN COUNTY PUD HYDRANT VALVE MAY BE USED UNDER SOME CIRCUMSTANCES.
- 6. DECHLORINATOR REQUIRED, CONTRACTOR MAY FLUSH TO SEWER OR STORM AFTER USING DECHLORINATOR. NOTIFY WENATCHEE WASTE WATER TREATMENT PLANT PRIOR TO FLUSH AIR GAP AT DISCHARGE.

### STANDARD DETAIL WATER MAINS FILLING NEW

- DISCHARGE/FLUSHING SEE NOTE 6.



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DETAIL NO. W - 110

## NO SEWER ALLOWED IN THIS AREA WATER MAIN STANDARD DUCTILE, HDPE FOR SEWER LINES STANDARD SEWER PIPE MATERIAL

#### PARALLEL CONSTRUCTION

#### WATER MAIN STANDARD PIPE MATERIAL

	AWWA STANDARD									
TYPE OF PIPE	PIPE	JOINT	FITTINGS							
DUCTILE IRON	C 1.52	C 111	C 110							
CONCRETE CYLINDER	C 303									

#### NOTES:

- 1. HORIZONTAL SEPARATION (PARALLEL) A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET BETWEEN GRAVITY SANITARY SEWERS AND ANY POTABLE WATER LINES SHALL BE MAINTAINED, WHENEVER POSSIBLE. THE DISTANCE SHALL BE MEASURED FROM EDGE TO EDGE.
- 2. UNUSUAL CONDITIONS (PARALLEL) WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION AS DESCRIBED ABOVE, A GRAVITY SEWER LINE MAY BE LAID CLOSER THAN TEN (10) FEET TO A WATER LINE PROVIDED:

A)IT IS LAID IN A SEPARATE TRENCH; OR IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE THAT IS LOCATED AT ONE SIDE ON A

B)IN EITHER CASE, THE ELEVATION OF THE CROWN OF THE GRAVITY SEWER MUST BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER LINE. WHEN THIS VERTICAL SEPARATION CANNOT BE OBTAINED, THE GRAVITY SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE 8 EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.

- 3. VERTICAL SEPARATION (PERPENDICULAR) SEWER LINES CROSSING WATER LINES SHALL BE LAID BELOW THE WATER LINES TO PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE WATER LINE AND THE CROWN OF THE SEWER LINE, WHENEVER POSSIBLE.
- 4. UNUSUAL CONDITIONS (PERPENDICULAR) WHEN LOCAL CONDITIONS PREVENT A VERTICAL SEPARATION AS DESCRIBED ABOVE, THE FOLLOWING CONSTRUCTION SHALL BE USED:

A)GRAVITY SEWERS PASSING OVER OR UNDER WATER LINES SHALL BE:

I. CONSTRUCTED OF MATERIAL DESCRIBED ON THIS PAGE. THE ONE SEGMENT OF THE MAXIMUM STANDARD LENGTH OF PIPE (BUT NO LESS THAN 18 FEET LONG) SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION; OR

II. CONSTRUCTED OF STANDARD GRAVITY SEWER MATERIAL ENCASED IN CONCRETE OR IN A 1/4" THICK CONTINUOUS STEEL CASING

WITH ALL VOIDS PRESSURE—GROUTED WITH SAND—CEMENT GROUT.

III. THE LENGTH OF THE SEWER PIPE, IN BOTH I. AND II. ABOVE, SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.

B)WATER LINES PASSING UNDER GRAVITY SEWERS, IN ADDITION, SHALL BE PROTECTED BY PROVIDING:

I. A VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE; ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINES: AND

III. THE LENGTH OF THE SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.

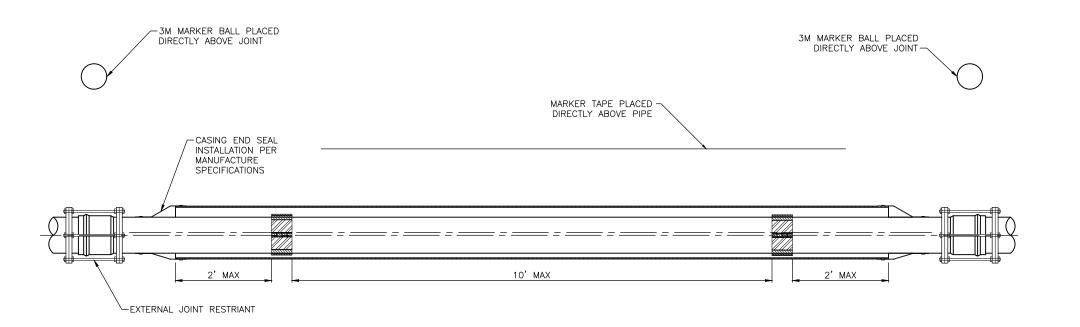
C)PRESSURE SEWERS SHALL ONLY BE CONSTRUCTED UNDER WATER LINES WITH DUCTILE IRON PIPE OR STANDARD SEWER PIPE IN A STEEL CASING FOR A DISTANCE OF AT LEAST TEN (10) FEET ON EACH SIDE OF THE CROSSING.

#### **EARANCE** SEWER DETAIL AND C **STANDARD** 8 **WATER** PACING S



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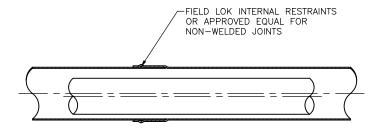


#### **KEY NOTES:**

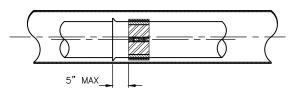
- CARRIER PIPE SHALL BE USED AS REQUIRED WITHIN CITY RIGHT-OF-WAY.
- 2. ALL IRRIGATION PIPE LOCATED WITHIN CITY RIGHT-OF-WAY SHALL BE PVC C900 OR APPROVED EQUAL
- 3. ALL JOINTS THROUGHOUT CASING SHALL BE RESTRAINED WITH FIELD LOC INTERNAL RESTRAINTS OR APPROVED EQUAL.
- 4. RESTRAIN CARRIER PIPE ONE JOINT BEYOND END SEALS.
- 5. MANUFACTURED CASING SPACER INTERVAL PER MANUFACTURER'S SPECIFICATIONS BUT NOT MORE THAN 10-FEET. MINIMUM 3 SPACERS PER PIPE LENGTH.
- 6. CASING SHALL BE WELDED STEEL OR DUCTILE IRON FOR INSTALLATIONS LESS THAN 3-FEET BELOW ROAD GRADE. CPE MAY BE SUBSTITUTED FOR AREAS OUTSIDE OF PAVED ROADWAY.
- 7. CASING PIPE LENGTHS SHALL BE OF THE LONGEST AVAILABLE LENGTH OF PIPE FROM MANUFACTURER
- 8. NON-WELDED STEEL CASING SHALL BE EXTERNALLY RESTRAINED AT ALL JOINTS.
- 9. 3M MARKER BALL TO BE PLACED DIRECTLY ABOVE JOINT RESTRAINT AT END OF PIPE.
- 10. DETECTABLE MARKER TAPE TO BE INSTALLED 12-INCHES TO 14-INCHES ABOVE PIPE CASING, COLOR SHOULD BE ACCORDING TO APWA UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITIES. DETECTABLE MARKING TAPE SHALL CONSIST OF INERT POLYETHYLENE PLASTIC THAT IS IMPERVIOUS TO ALL KNOWN ALKALIS, ACIDS, CHEMICAL REAGENTS, AND SOLVENTS LIKELY TO BE ENCOUNTERED IN THE SOIL, WITH A METALLIC FOIL CORE TO PROVIDE FOR THE MOST POSITIVE DETECTION AND PIPELINE LOCATION. DETECTABLE MARKING TAPE SHALL BE NO LESS THAN 2-INCHES WIDE, TYPE OF BURIED UTILITY SHOULD BE CLEARLY MARKED CONTINUOUSLY ALONG THE LENGTH OF THE RIBBON WITH MINIMUM 1-1/2 INCH LETTERS IN THE FOLLOWING FORMAT: "CAUTION BURIED (UTILITY TYPE) LINE"



#### **CASING SPACERS DETAIL**



#### NON WELDED JOINT DETAIL



SPACER DISTANCE FROM BELL DETAIL

NTS

**STANDARD** CARRIER

DETAIL

PIPE



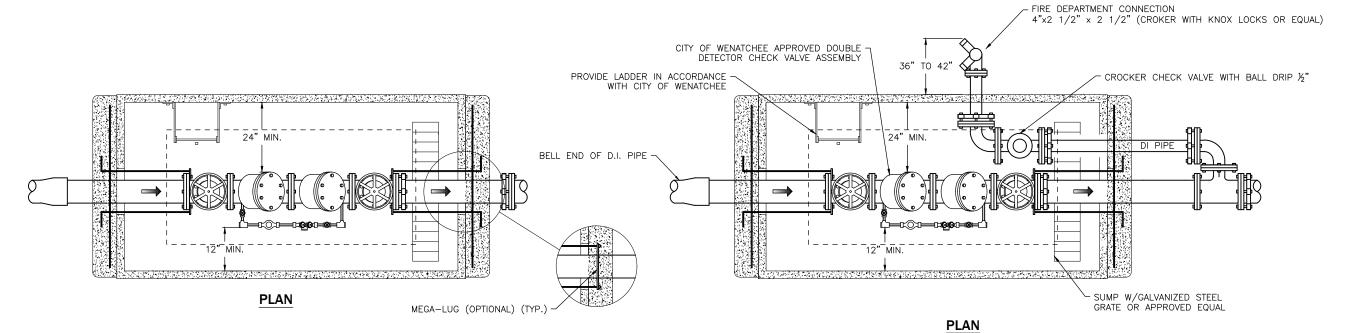
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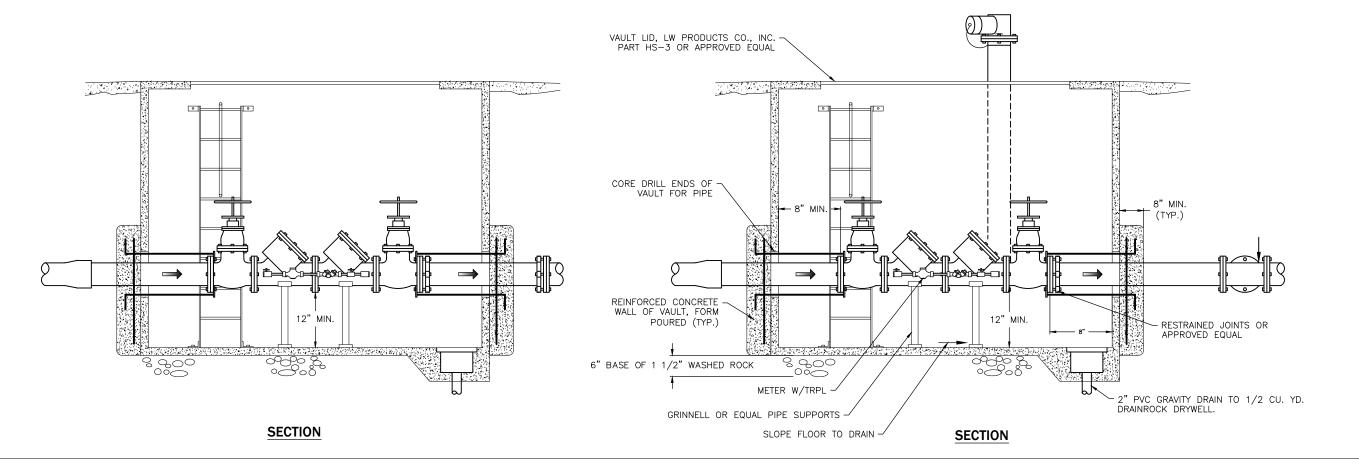
#### NOTES:

- 1. COVER SHALL NOT EXTEND MORE THAN 2" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA.
- 2. SLOPE PAVEMENT AWAY FROM COVER.
- 3. VAULT LID SHALL BE OF ADEQUATE HEIGHT TO PROVIDE MIN. 6" CLEARANCE TO O, S & Y VALVE WHEN VALVE IS FULLY OPEN.
- 4. 5/8" BY-PASS METER SHALL BE SENSUS SR II OR NEPTUNE T-10.
- 5. VAULTS SHALL BE AS MANUFACTURED BY UTILITY VAULT OR APPROVED EQUAL AND SHALL BE STRUCTURALLY DESIGNED FOR THE PROPOSED INSTALLATION.
- 6. BACK-FLOW VALVE AND ASSEMBLY MUST APPEAR ON CURRENT DEPT. OF HEALTH'S APPROVED VALVE LISTING.
- 7. ASSEMBLY SHALL BE MAINTAINED BY OWNER WITH A TEST DONE UPON INSTALLATION AND ANNUALLY THEREAFTER BY A CERTIFIED BACK-FLOW ASSEMBLY TESTER (BAT.) A COPY OF EACH ANNUAL TEST REPORT MUST BE SENT TO THE CITY OF WENATCHEE.
- 8. WATER MAIN SHALL NOT BE PLACED IN SERVICE UNTIL AFTER DOUBLE CHECK DETECTOR ASSEMBLY IS INSPECTED. TESTED AND APPROVED BY CITY REPRESENTATIVE.
- 9. RESTRAIN CHECK DETECTOR WITH MEGA-LUGS. RESTRAINED JOINT PIPE, OR SHACKLE RODS BACK TO WATER MAIN AS REQUIRED.



SHOWN WITHOUT FIRE DEPARTMENT CONNECTION. WHEN FDC IS AT ANOTHER LOCATION

THIS DCDA VAULT SERVES A SINGLE BUILDING AND THE VAULT IS LOCATED ADJACENT TO THE RIGHT OF WAY WHERE A FIRE HYDRANT IS NEARBY.

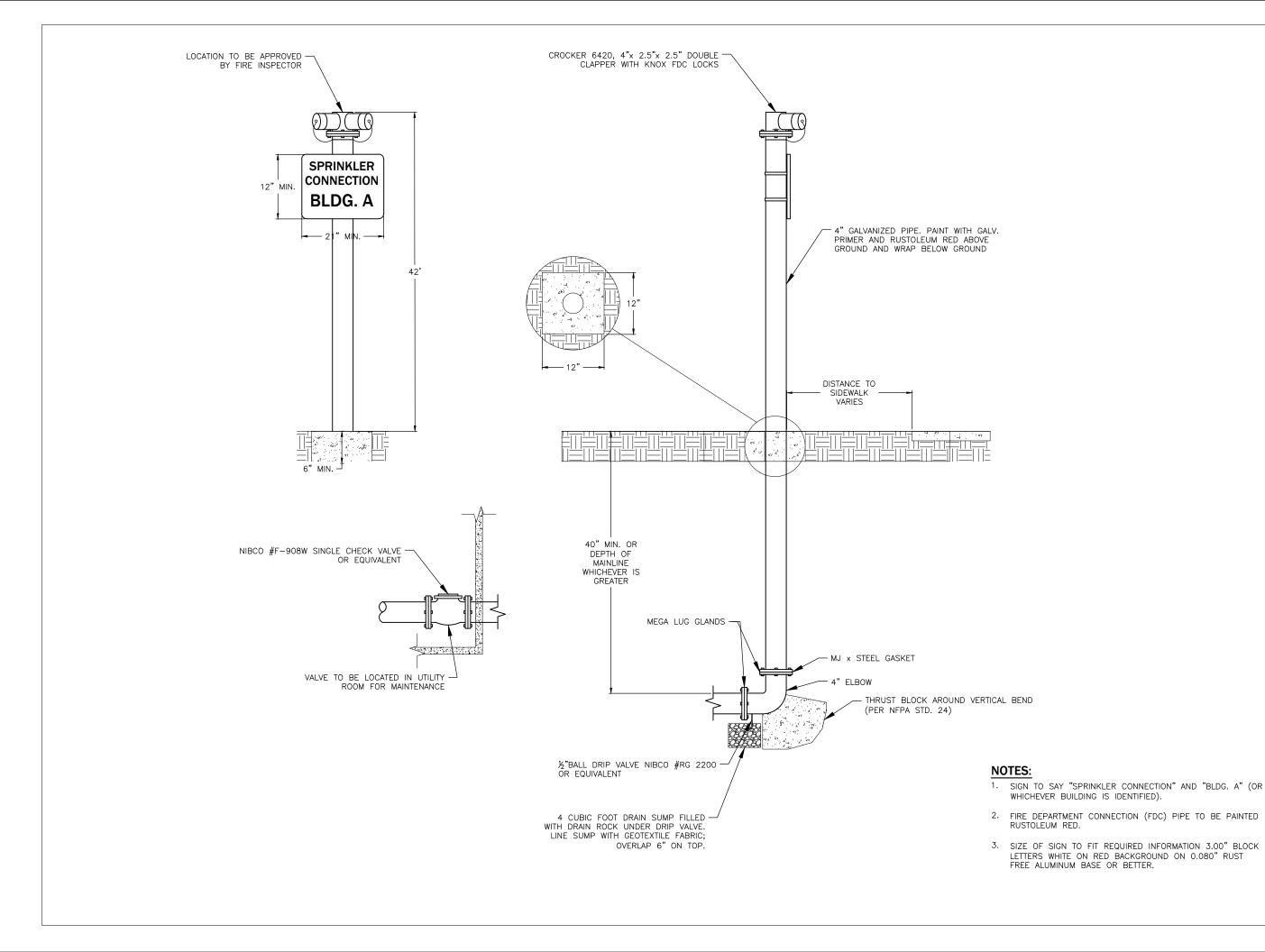


## STANDARD DETAIL FIRE SERVICE DCDA CONNECTION



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### STANDARD DETAIL STANDALONE FDC FIRE SERVICE



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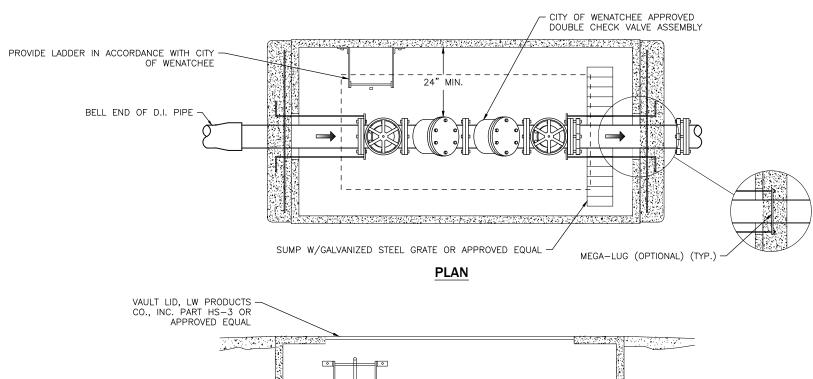
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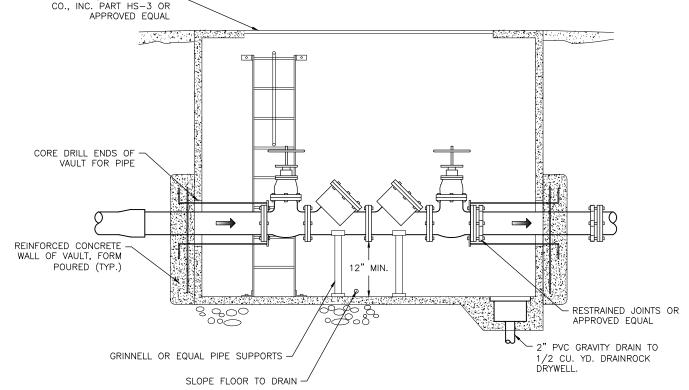
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PAGE 2 OF 2

#### NOTES:

- 1. TYPICAL LOCATION IS AT OR NEAR THE PROPERTY LINE, AT BACK OF WATER METER CHAMBER.
- 2. COVER SHALL NOT EXTEND MORE THAN 2" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA.
- 3. SLOPE PAVEMENT AWAY FROM COVER.
- VAULT LID SHALL BE OF ADEQUATE HEIGHT TO PROVIDE MIN. 6" CLEARANCE TO 0, S & Y VALUE WHEN VALVE IS FULLY OPEN.
- VAULTS SHAL BE AS MANUFACTURED BY UTILITY VAULT OR APPROVED EQUAL AND SHALL BE STRUCTURALLY DESIGNED FOR THE PROPOSED INSTALLATION.
- BACK-FLOW VALVE AND ASSEMBLY MUST APPEAR ON CURRENT DEPT. OF HEALTH'S APPROVED VALVE LISTING.
- 7. RESTRAIN CHECK DETECTOR WITH MEGA-LUGS. RESTRAINED JOINT PIPE, OR SHACKLE RODS BACK TO WATER MAIN AS REQUIRED.
- 8. BOTTOMLESS VAULTS MUST PROVIDE CONCRETE SUPPORT FOUNDATIONS FOR PIPE SUPPORTS.
- ASSEMBLY SHALL BE MAINTAINED BY OWNER WITH A TEST DONE UPON INSTALLATION AND ANNUALLY THEREAFTER BY A CERTIFIED BACK-FLOW ASSEMBLY TESTER (BAT.) A COPY OF EACH ANNUAL TEST REPORT MUST BE SENT TO THE CITY OF WENATCHEE.
- 10. WATER SERVICE SHALL NOT BE PLACED IN SERVICE UNTIL AFTER DOUBLE CHECK DETECTOR ASSEMBLY IS INSPECTED. TESTED AND APPROVED BY CITY REPRESENTATIVE.
- 11. ACCOUNT FOR THERMAL EXPANSION WITHIN THE PREMISES.
- 12. AN ALTERNATE LOCATION MAY BE ALLOWED BY THE WATER PURVEYOR.





**SECTION** 

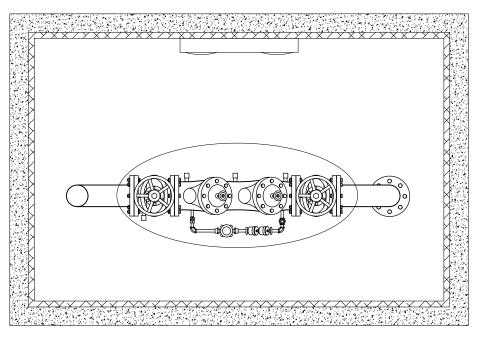
#### **CHECK VALVE ISOLATION** DETAIL STANDARD ES **PREMISE** DOUBLE



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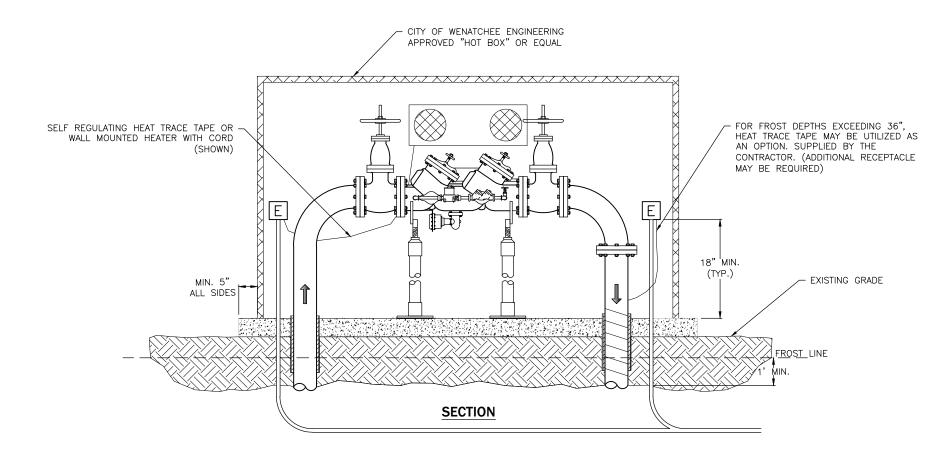
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#### **PLAN**

#### NOTES:

- 1. ASSEMBLY SHALL BE MAINTAINED BY OWNER, TESTING IS REQUIRED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER (BAT) AFTER INSTALLATION, THEN ANNUALLY THEREAFTER. A COPY OF THE TEST REPORT SHALL BE SENT TO THE CITY OF WENATCHEE.
- 2. WATER MAIN SHALL NOT BE PLACED IN SERVICE UNTIL AFTER REDUCED PRESSURE BACKFLOW ASSEMBLY IS INSPECTED AND APPROVED BY THE CITY OF WENATCHEE.
- 3. RESTRAIN ASSEMBLY WITH, MEGA—LUGS, RESTRAINED JOINT PIPE OR SHACKLE RODS BACK TO WATER MAIN AS REQUIRED.
- 4. SEE CURRENT ADDITION OF AWWA CROSS CONNECTION CONTROL MANUAL FOR ADDITIONAL DETAILS.



REDUCED PRESSURE BACKFLOW ASSEMBLIES RPBA's & RDDA's

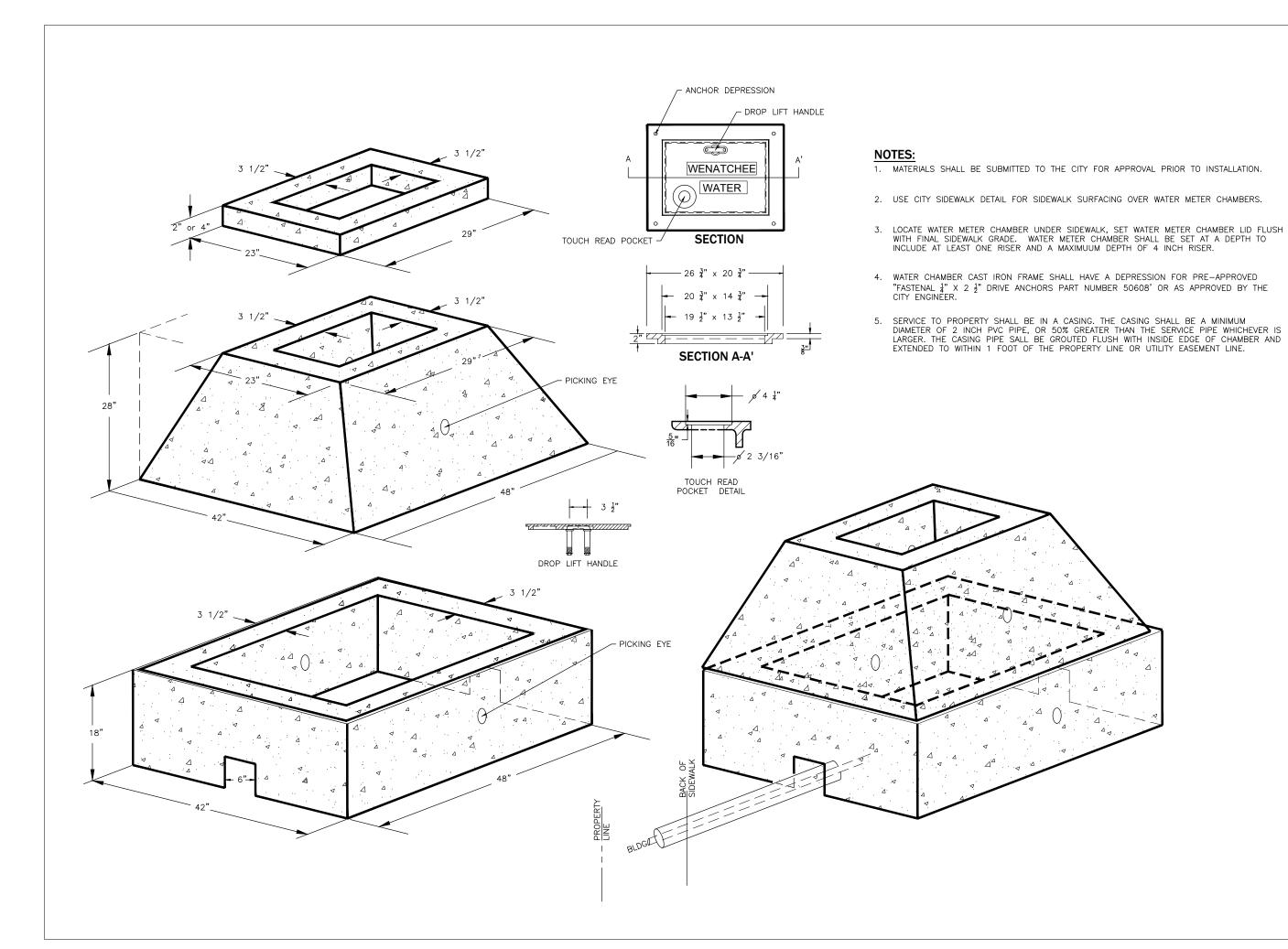
## STANDARD DETAIL HOT BOX ENCLOSURE BACK FLOW ASSEMBLY



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# STANDARD DETAIL WATER BOX CHAMBER

SERVICES

**WATER METER** 

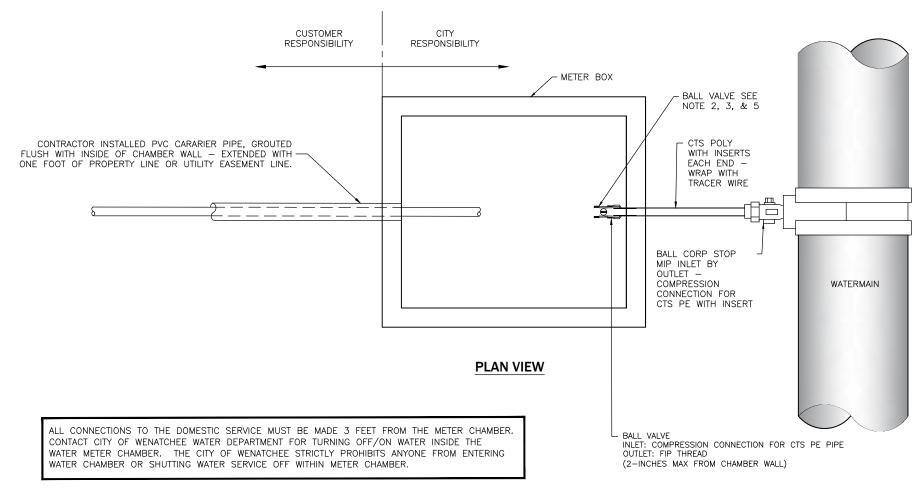
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#### WATER METER LID (SEE CITY WATER CHAMBER DETAIL SHEET 1) FROM SADDLE WRAPPED AROUND POLY TO METER LID FRAME EXTENDABLE TO 12-INCHES ABOVE SURFACE WATER METER CHAMBER ROMAC 202S SADDLE -CUSTOMER INSTALLED TYPE "K" COPPER OR CTS POLLY STUB MAXIMUM OF 24 INCHES TO CHAMBER 2-INWATER TAP BY CITY ALL PRIVATE LINES LARGER FOR SERVICE CONNECTION THAN 2" SHALL BE TESTED BEFORE CONNECTING TO THE BALL VALVE DOMESTIC WATER SERVICE 2-IN COMPACTED GRAVEL BASE CONTRACTOR INSTALLED PVC CARRIER PIPE, GOUTED FLUSH WITH INSIDE OF CHAMBER WALL BALL CORP STOP -EXTENDED WITHIN ONE FOOT OF PROPERTY LINE OR UTILITY EASEMENT LINE. WATERMAIN

#### NOTES:

- 1. MATERIALS SHALL BE SUBMITTED FOR CITY APPROVAL PRIOR TO INSTALLATION.
- 2. MATERIAL SHALL BE NON—LEAD, SUPPLIERS ARE TYPICALLY: FORD, MEULLER, AND AY MCDONALD.
- 3. WATCH BALL VALVE SIZE TO CTS POLY, MINIMUM PIPE DIAMETER IS 1 ½ INCH FOR ALL SINGLE SERVICES FROM WATER MAIN
- 4. DOWNSTREAM WATER SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE WATER METER FOR TEN (10) FEET.
- 5. BALL VALVE'S COMPRESSION COUPLING TO THE CTS PE WATER SERVICE PIPE SHALL HAVE INSERT AND BE A MAXIMUM OF 2-INCHES FROM INSIDE OF CHAMBER.
- 6. ALL TAPS SHALL BE BY CITY CREWS

WATER SERVICES								
SINGLE METER SIZE IN CHAMBER (INCHES)	SERVICE TO CHAMBER (INCHES)	SERVICE FROM CHAMBER (INCHES)						
§ OR ₹	1 ½ *	3/4						
1	1 ½ *	1						
1 1/2	1 1/2	1 1/2						
2	2	2						
* 1-INCH MINIMUM AS DETERMINED BY CITY								

## STANDARD DETAIL 1 1/2" OR 2" SINGLE METER SERVICE

SERVICES

ETER

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**WATER** 



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**SECTION VIEW** 

SERVICES

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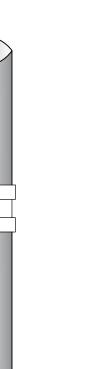
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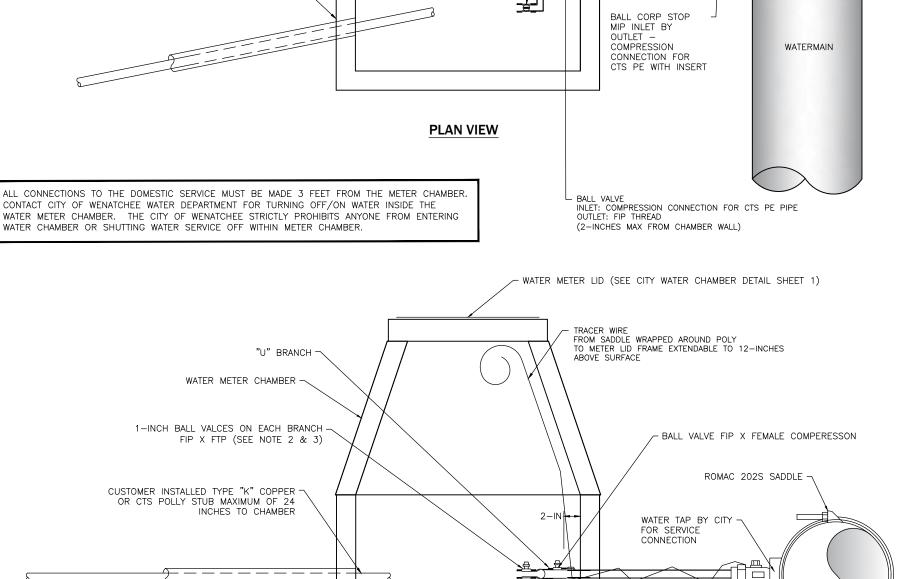
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PAGE 3 OF 4



#### NOTES:

- 1. MATERIALS SHALL BE SUBMITTED FOR CITY APPROVAL PRIOR TO INSTALLATION.
- 2. MATERIAL SHALL BE NON-LEAD, SUPPLIERS ARE TYPICALLY: FORD, MEULLER, AND AY MCDONALD.
- 3. MATCH BALL VALVE SIZE TO CTS POLY, 1—1 INCH BY 1—INCH U—BRANCH SET 12—INCH ON CENTER CONNECTED TO 1 1 INCH BALL VALVE NEAR CHAMBER WALL AND WITH 1-INCH BALL VALVES ON EACH BRANCH.
- 4. DOWNSTREAM WATER SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE WATER METER FOR TEN (10) FEET.
- 5. 1  $\frac{1}{2}$  INCH BALL VALVE COMPRESSION COUPLING TO THE CTS PE SERVICE PIPE SHALL BE A MAXIMUM OF 2-INCHES
- 6. ALL TAPS SHALL BE BY CITY CREWS



CUSTOMER RESPONSIBILITY

CONTRACTOR INSTALLED PVC CARRIER PIPE.

OR UTILITY EASEMENT LINE.

GOUTED FLUSH WITH INSIDE OF CHAMBER WALL EXTENDED WITHIN ONE FOOT OF PROPERTY LINE

CONTRACTOR INSTALLED PVC CARARIER PIPE, GROUTED FLUSH WITH INSIDE OF CHAMBER WALL — EXTENDED WITH ONE FOOT OF PROPERTY LINE OR UTILITY EASEMENT LINE.

RESPONSIBILITY

- METER BOX

- BALL VALVES ON EACH BRANCH F.I.P. x F.I.P.

"U" BRANCH SEE NOTE 3

ENDS

1 IINCH CTS PIPE

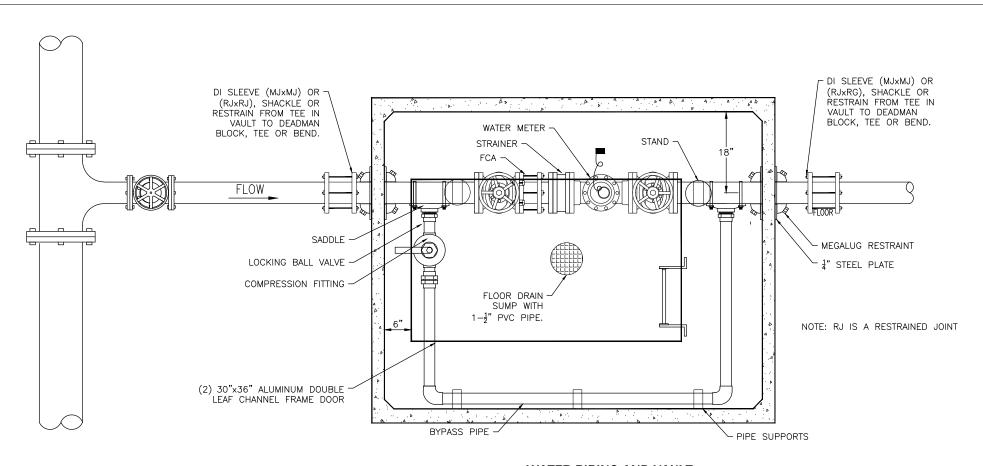
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WITH INSERTS BOTH

BALL CORP STOP -

**SECTION VIEW** 

2-IN COMPACTED GRAVEL BASE

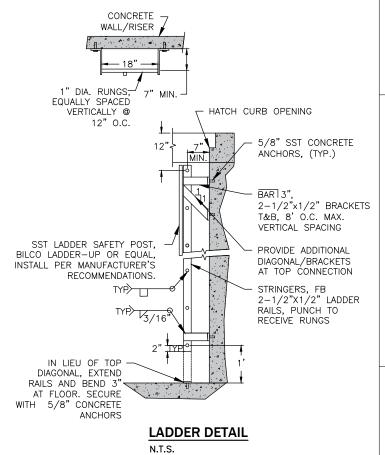


WATER PIPING AND VAULT N.T.S.

**DOUBLE CHECK VAULT** 



- NOTES:
  1. LADDERS SHALL BE ALUMINUM.
- 2. LADDER MUST MEET CONSTRUCTION REQUIREMENTS OF



#### **NOTES:**

- 1. MATERIALS SHALL BE SUBMITTED FOR CITY APPROVAL PRIOR TO INSTALLATION.
- 2. MATERIALS SHALL BE NON-LEAD.
- 3. MATCH BALL VALVE SIZE TO CTS POLY.
- 4. BALL VALVE COMPRESSION COUPLING TO THE CTS PE WATER SERVICE PIPE SHALL HAVE INSERT AND BE A MAXIMUM OF 2 INCHES FROM INSIDE CHAMBER WALL.
- 5. DOWNSTREAM WATER SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE WATER METER FOR 3 FEET.
- 6. ALL TAPS SHALL BE BY CITY CREWS.
- 7. WATER METER TO BE LOCATED AT BACK OF WALK. SET WATER METER CHAMBER LID FLUSH WITH FINAL SIDEWALK GRADE.
- 8. EASEMENTS REQUIRED WHEN OUTSIDE RIGHT-OF-WAY.

#### **WATER** DETAIL **5 STANDARD** AND 4 3

CHAMBER

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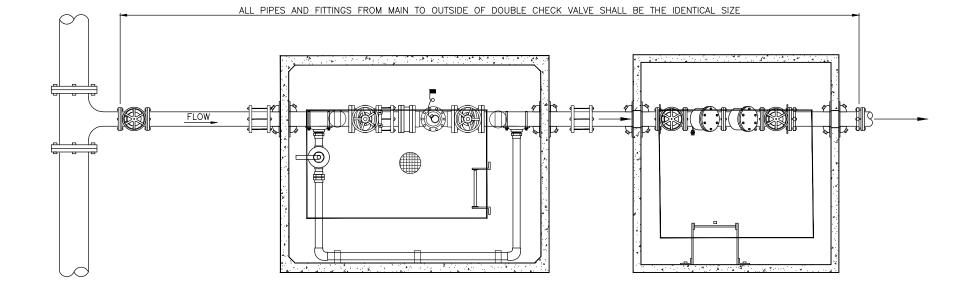


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	01/28/21	DATE	INITIAL	
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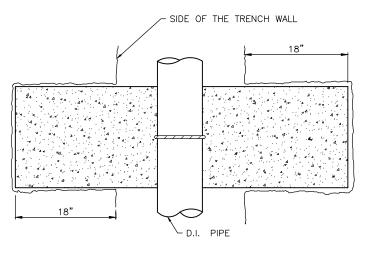
DETAIL NO. W-250D

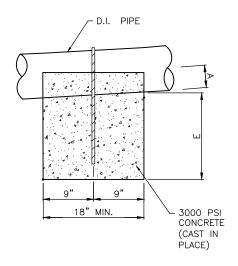
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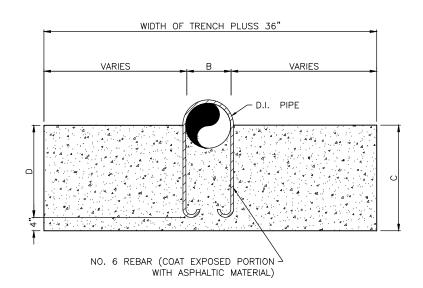
4 OF 4



WATER PIPING AND VAULT







PIPE SIZE	DIMENSIONS (INCHES)								
	А	В	С	D	Ε				
4"	2.4	4.8	17	13	14.6				
6"	3.5	6.9	18	14	14.5				
8"	4.5	9.1	19	15	14.5				
10"	5.6	11.1	20	16	14.4				
12"	6.6	13.2	21	17	14.4				
14"	7.7	15.3	22	18	14.3				
16"	8.7	17.4	23	19	14.3				
18"	9.8	19.5	24	20	14.2				

SLOPES > 20% - PROVIDE CONCRETE SLOPE ANCHORS (20' TO 25' ON CENTER.)

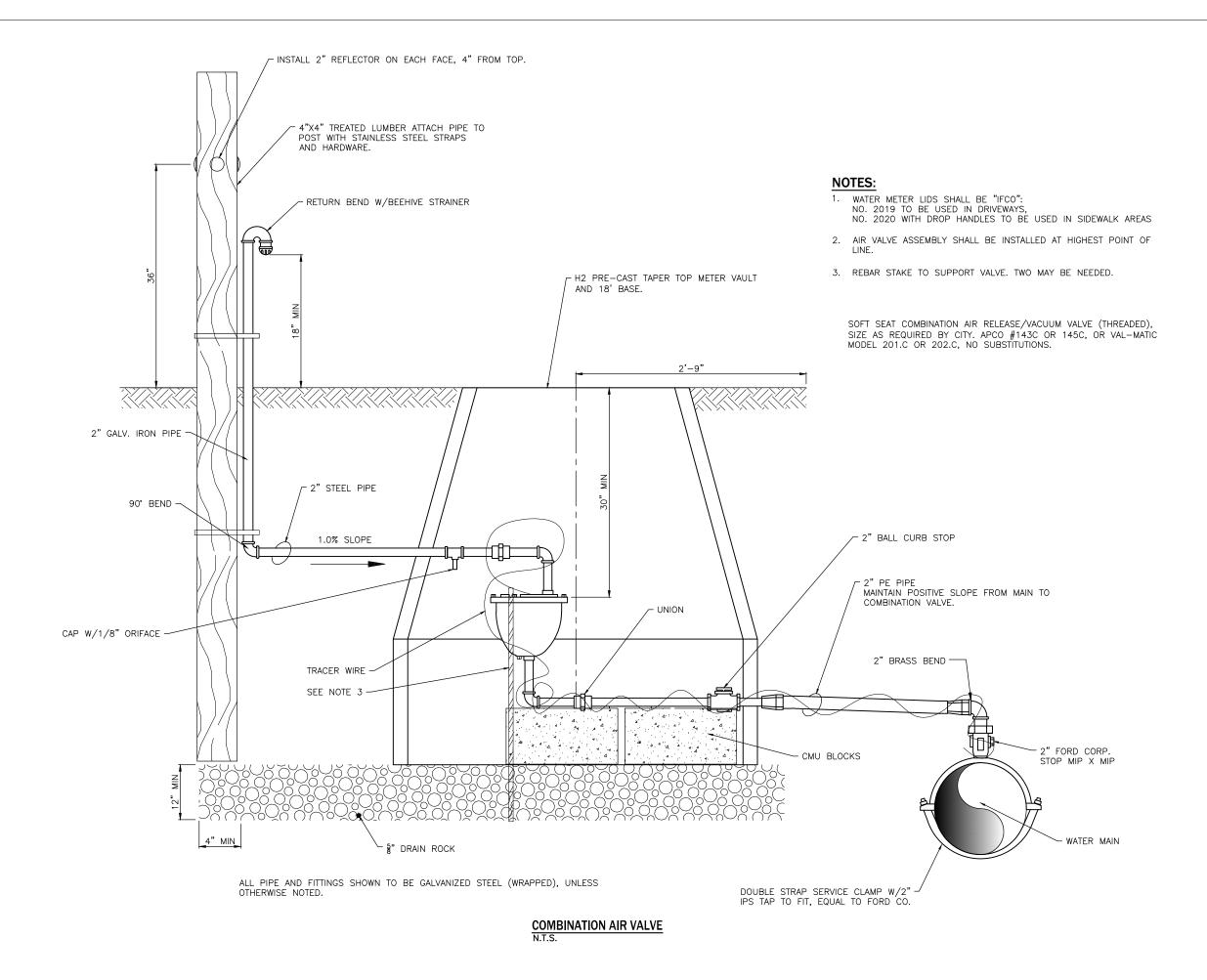
## STANDARD DETAIL **CONCRETE SLOPE ANCHOR**



:: AS SHOWN	SHOWN	DATE DRAWN	REVISIONS	NS
		11/04/2020	DATE	INITIAL
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	CAW			
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DETAIL NO. W - 310

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## STANDARD DETAIL COMBINATION AIR VALVE



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NS	INITIAL	CAW	AJS				
REVISIONS	DATE	12/21/2020 CAW	01/01/2022 AJS				
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DESIGNED DRAWN CHEMINA SKILL S

W-400

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